

BROOKS OPTRONICS

2971 COPPER ROAD
SANTA CLARA, CALIFORNIA



Mr. T. Nelson
System Consultant
P. O. Box 3
Schooleys Mtn., N. J. 07870

BROOKS OPTRONICS

OPTOELECTRONICS • DISPLAYS • INSTRUMENTS

2971 COPPER ROAD
SANTA CLARA, CALIFORNIA
TELEPHONE 245-8322

December 6, 1968

Mr. T. Nelson
System Consultant
P.O. Box 3
Schooleys Mtn., N. J.

Dear Mr. Nelson:

Thank you for your recent inquiry on our new "Solid State Electronic" products for the sign display industry.

We are enclosing herewith our most current descriptive literature on the Time-Temp, Versa-Sign and Glo-Ad display systems.

Our experience with the Model SST Time-Temperature unit has been most gratifying. The "Solid State Electronic" design has resulted in such amazingly high performance reliability and low maintenance that we feel it is the outstanding unit available in the industry today. When considering the many features, as described in the enclosed brochure, that are included as standard equipment in the Model SST, this unit is your most economic in the market today. The list prices contained in the brochure are subject to a 40% dealer discount.

The enclosed "Versa-Sign" brochure describes some of the various features of our equipment such as Auto-Matic dimming, quiet operation and ease of changing programs.

We can supply both lamp banks and electronic equipment or electronic controls only. The electronic controls are really in two parts. Some of the electronics are located in the input equipment and some at the lamp banks.

The input equipment will control any number of lamp banks even if they are placed at different locations on the face of a building. The equipment has many more features than were available in the industry prior to the development of the "Versa-Sign" system. For instance, the same equipment without modification or adjustment can:

1. Be a traveling message unit.
2. Be a copy changer and flash entire messages on at once.
3. Flash off and on in either travel or copy changer mode.
4. Mix all three modes above on the same tape loop.

Another advantage of our unit is that a small lamp bank monitor panel at the transmitting location permits viewing the messages as displayed on the large remote lamp banks. At any time you know exactly what is being displayed on your large sign. The equipment is all solid state which is very quiet in operation and requires practically no maintenance. The input equipment is housed in attractive solid walnut cabinets which blend well

BROOKS OPTRONICS

Page-2-

into any office setting. Controls are simple to operate and any office personnel can master the job with only a few minutes instruction.

Electronics at the lamp banks are modular in construction and are plug-in type pre-wired units. A single low voltage, low current cable of approximately eight conductors is required between the control equipment and the first lamp bank. The cable is easily installed similar to an extension telephone line.

Since the lamp bank electronics are modular, maintenance is very simple should it be required. A module is simply unplugged and replaced with a spare unit. The defective unit is returned to us on an exchange basis. Should you desire to increase the length of the sign or to add additional faces, no change in control equipment is necessary. Additional lamp bank modules are added as required. No contacts or other moving parts are used in any of the lamp bank controls, therefore no service is normally required.

The enclosed dealer price schedule is an estimate based on typical installations using a maximum of 40 watt lamps. Higher wattage requires additional electronics to control various functions such as auto-matic dimming, etc. Some changes in these prices may be required based on the installation details for a particular job.

The enclosed "Glo-Ad" brochure describes the many applications of this unique display system. This is a complete "Solid State Electronic" system with a remote input control unit. The input unit is a typewriter type keyboard which includes a letter display indicating the letter typed before transmission to the sign display. A tape recorder unit for input is available as an option with the "Glo-Ad" system. The lamp modules are all individually constructed enabling you to design a display any number of digits long or lines of copy high. They can be controlled from the single remote input unit.

The dealer net price schedule enclosed is based on twenty digits per line and is for your estimating purposes. Some change in these prices may be necessary due to your special application.

We trust we have given you enough information to proceed with designing around these fine products. If additional information is desired, please do not hesitate to call us. We will be pleased to work with you on any installation you may have.

Yours very truly,

BROOKS OPTRONICS

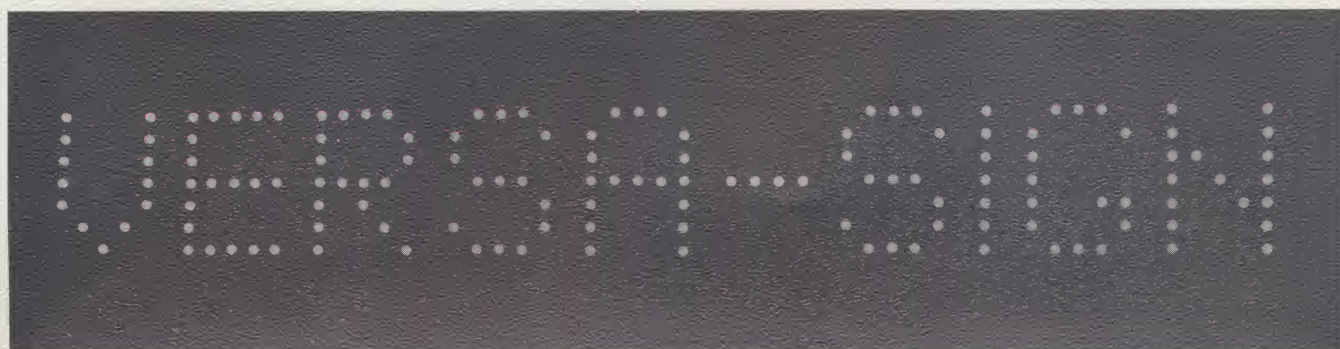
William Brooks
William Brooks

WB/c

VERSA-SIGN

YOUR NEW DYNAMIC ADVERTISING DISPLAY

- ★ **Versatility Unlimited**
- ★ **Traveling Message**
- ★ **Copy Changer**
- ★ **Flashing Message**



COMPLETE ELECTRONIC SOLID STATE SYSTEM

- Remote Control
- Simple Input Keyboard
- Input Readers
- Magnetic Tape Program
- Automatic Dimming
- Lamps 7½ to 150 Watts
- Modular Plug-in Circuitry

PRESENTED BY

Brooks Optronics

Electronic Display Systems

2971 Copper Road — Santa Clara, Calif. 95051
Phone 408—245-8322

ADVERTISING MEDIUM

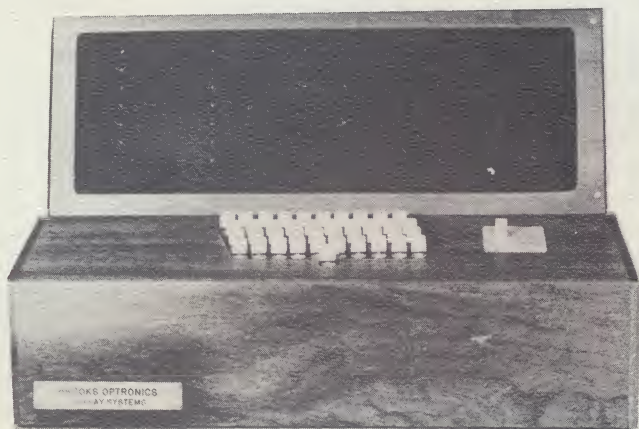
THE "VERSA-SIGN" system with an unlimited life span, together with the ease of operation, makes this system the finest sales medium available today in the sign display industry. This system, with its versatility of display, low initial cost and low maintenance cost is compatible with every type business which has a message to deliver.

APPLICATION

Wherever visual display advertising is used as a sales medium, the "Versa-Sign" can be applied. Instantaneous changing and variable messages on indoor or outdoor displays opens a new opportunity for delivering a message with an impact that sells. Theatres, shopping centers, service stations, transportation terminals, sports arenas, hotels, motels, radio and TV stations and financial institutions represent only a portion of the many locations a "Versa-Sign" display system will result in increased sales activity. Many of these firms will blend their advertising with public service information, giving their viewers a specific reason for looking at their display every day. Public service announcements can be alternated with the sales message. Items such as fund drives, historical notes, local and national news will create continued interest and help establish a favorable public image for the firm originating the information.

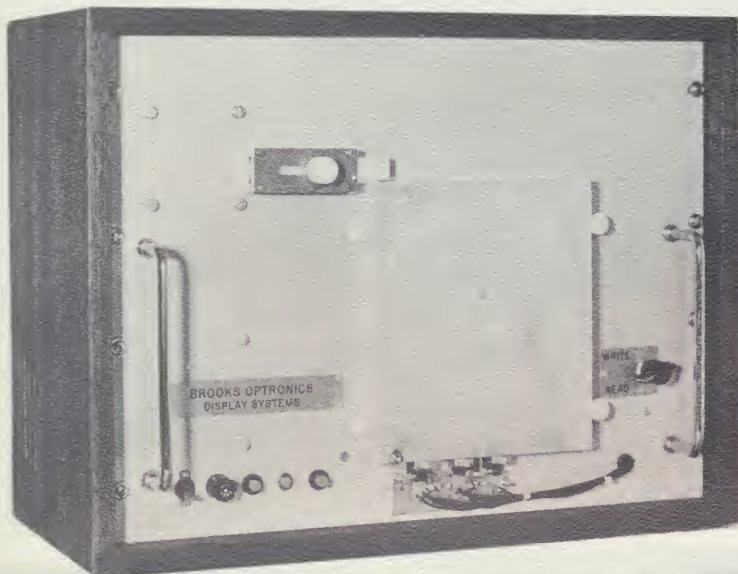
The "Versa-Sign" display system is custom engineered to suit the needs of any indoor or outdoor application. Variations in height and length are available for each individual location.

There is no sign available today in the industry which combines all the varied capabilities in one economical package, as is available in the "Versa-Sign" system. Due to its unique input system and ease of operation, the "Versa-Sign" will never be obsolete. The solid state electronic design of the lamp bank electronics and controls insures high reliability, low maintenance and long life.



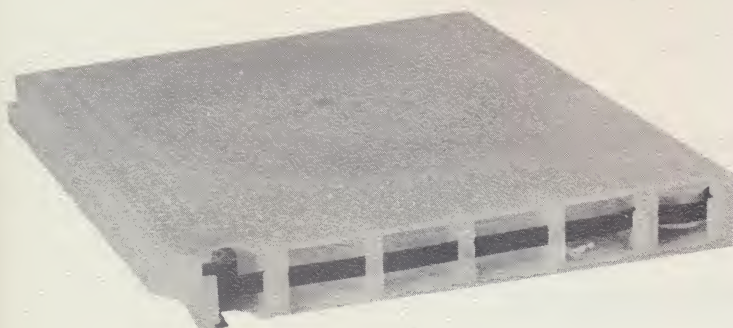
BROOKS OPTRONICS INPUT KEYBOARD

Solid state electronic typewriter type keyboard with input direct to the sign or to a magnetic tape memory unit. Records messages on small monitor lamp bank before it goes out to the main lamp bank at the sign. Monitor bank is available 7 lamps high and 11 to 23 lamps long. Electronics are modular plug-in circuitry for high reliability and minimum maintenance.



BROOKS OPTRONICS TAPE RECORDER

The endless loop magnetic tape is used as a memory for messages transmitted from the keyboard unit. In the traveling message mode the tape runs continuously. In the copy changer and flashing mode the tape stops for an adjustable dwell period. All three operational modes may be inter-mixed on one tape loop from the keyboard input. The recorder displays the message on the keyboard monitor display before transmission to the sign display for viewing by the operator, when in the traveling message mode.



MAGNETIC ENDLESS LOOP TAPE

The tapes are plug-in units so no threading of tape or reels is necessary. Tape loop lengths are available from 40 seconds to one hour before repeating. Maximum copy is approximately 2000 words for the traveling message mode before repeating. In typical signs up to approximately 4500 messages can be stored before repeating while in the copy changer mode and the copy can be changed in 0.7 of a second.

THE OPERATION of the "Versa-Sign" system is a new innovation in simplicity. Input gear is located remote from the lamp banks and controls the mode of operation of the lamp banks. The input gear determines whether the display is to be a traveling message display or a copy changer. It also determines the programming of the lamp banks as to the letter size, display cycle, flashing and other special effects. The input gear can control any length and height display. The input keyboard allows you to type your message direct to the sign for display or to the tape recorder memory unit for continuous uninterrupted playback to the lamp bank display.

LAMP BANKS are made from galvanized sheet steel and are of modular construction. Standard banks are 7 lamps high and either 10 or 20 lamps long. The modular construction allows extending the height of the display to suit a particular design. No additional input gear is required when adding to your display. Replacement modules are available for low maintenance on an overnight basis in most instances. Interconnect cables are at a minimum and are all plug-in units. Non-standard lamp banks are available to suit a custom display. Lamp banks may be contracted for separately and will not hinder the design or operation of the "Versa-Sign" electronic system.

LAMP BANK ELECTRONICS consists of packs mounted at the rear face of the lamp bank. An electronic switch within the packs for each lamp of the display is controlled by the input gear. Only one wire per horizontal row is required from the input gear. The control wire is a low voltage, low current cable. Power for the lamps is wired directly to the lamp banks. The electronic packs are of modular construction and plug-in solid state circuitry.

A "VERSA-SIGN" display system can be built to suit your particular needs. The unique and varied capabilities of the system make it a "natural" for sales media and public service messages. For detailed information to fit your custom display write or call the factory.

Brooks Optronics

Electronic Display Systems

2971 Copper Road — Santa Clara, Calif. 95051
Phone 408—245-8322

BROOKS OPTRONICS

August 30, 1968

TRAVELING MESSAGE DISPLAY - "VERSA-SIGN" SYSTEM

SUGGESTED PRICING FOR STANDARD UNITS-40 WATT LAMP-MAXIMUM*

TYPICAL SIGNS-INCLUDING INPUT GEAR

<u>CONTROLS AND LAMP BANKS</u>	<u>DEALER NET PRICE</u>	
	<u>Single Face</u>	<u>Double Face</u>
7 lamps high by 80 lamps long (22" x 20 ft.) Approx-12 letters. Traveling Message Mode	\$12,800.00	\$16,250.00
Copy Changer Mode	\$13,100.00	\$16,550.00
7 lamps high by 120 lamps long (22" x 30 ft.) Approx-20 letters. Traveling Message Mode	\$16,600.00	\$22,800.00
Copy Changer Mode	\$16,900.00	\$23,100.00
<u>CONTROLS AND INPUT GEAR ONLY</u>		
7 lamps high by 80 lamps long (22" x 20 ft.) Approx-12 letters. Traveling Message Mode	\$10,400.00	\$10,400.00
Copy Changer Mode	\$10,700.00	\$10,700.00
7 lamps high by 120 lamps long (22" x 30 ft.) Approx-20 letters. Traveling Message Mode	\$13,200.00	\$14,100.00
Copy Changer Mode	\$13,500.00	\$14,400.00

Above prices are for estimating purposes only and subject to change without notice. Specifications required on a particular installation may require a change in equipment from standard electronics and input gear.

Terms: F.O.B. Santa Clara, California
30 days net subject to credit approval

*Lamp wattage over 40 watts requires addition electronics for auto-matic dimming control, etc.

SUGGESTED PRICING----"GLO-AD" DISPLAY SYSTEMALPHA NUMERIC INFORMATION DISPLAY20 DIGIT DISPLAY WITH INPUT GEAR

	<u>DEALER NET PRICE</u>
ONE-LINE DISPLAY-----	\$ 2,975.00
TWO-LINE DISPLAY-----	5,450.00
THREE-LINE DISPLAY-----	7,925.00
FOUR-LINE DISPLAY-----	10,400.00
FIVE-LINE DISPLAY-----	12,875.00
SIX-LINE DISPLAY-----	15,350.00
SEVEN-LINE DISPLAY-----	17,825.00
EIGHT-LINE DISPLAY-----	20,300.00
NINE-LINE DISPLAY-----	22,775.00
TEN-LINE DISPLAY-----	25,250.00

OPTIONS

RECORDER UNIT-----	\$200.00
SPARE DIGIT MODULE-----	\$135.00

NUMERIC ONLY-INFORMATION DISPLAY4 DIGIT DISPLAY MULTIPLES-WITH INPUT GEAR

FOUR-DIGIT DISPLAY-----	\$ 465.00
EIGHT-DIGIT DISPLAY-----	805.00
TWELVE-DIGIT DISPLAY-----	1,145.00
SIXTEEN-DIGIT DISPLAY-----	1,485.00
TWENTY-DIGIT DISPLAY-----	1,825.00

OPTIONS

RECORDER UNIT-----	\$200.00
SPARE DIGIT MODULE-----	\$ 95.00

Above prices are for estimating purposes and subject to change without notice. Specifications required on a particular installation may require a change in equipment from the standard electronics and input gear.

Terms: F.O.B. Santa Clara, California
30 days net subject to credit approval

GLO-AD

All New Alpha-Numeric Advertising Display
Eye Appealing — Interest Holding



Complete Electronic Solid State

- Remote Control
- Simple Input Keyboard
- Lamp Control
- Displays All Letters and Numerals
- 4½-inch Letters
- Low Voltage Control
- Modular Units

PRESENTED BY

Brooks Optronics

ELECTRONIC DISPLAY SYSTEMS

2971 Copper Road - Santa Clara, Calif. 95051
Phone (408) 245-8322

VISUAL ADVERTISING

Visual communications plays an ever increasing role in today's "on the move" society. Wherever information must be instantly changed for any reason "GLO-AD" systems will perform with ease and reliability. Complete remote control enables you to constantly update your display with a wide variety of advertising and current happenings of interest to the consumer trade. The versatility of the "GLO-AD" systems opens a new opportunity for the business community to reach the sign conscious public. The low initial cost and minimum maintenance of the "Solid State" system enables any type business to deliver their sales message with an impact that sells.

APPLICATIONS

- * **AIRPORTS, BUS DEPOTS, ETC.**

Gate numbers, flight time, flight numbers, destination, baggage identification, digital clocks.

- * **INDUSTRIALS PLANTS**

Lot number, units produced in a period, hours of production since last accident, silent paging, safety messages, work flow programming, production control.

- * **OFFICES**

Silent paging, business information, status boards, production control.

- * **STORES**

In-store special announcements, sales, in-elevator sales promotion, window displays that change every few seconds, five minute sales, special events.

- * **MOVIE THEATRES**

Current features, coming attractions, snack bar, special events, silent paging.

- * **SPORTS ARENAS**

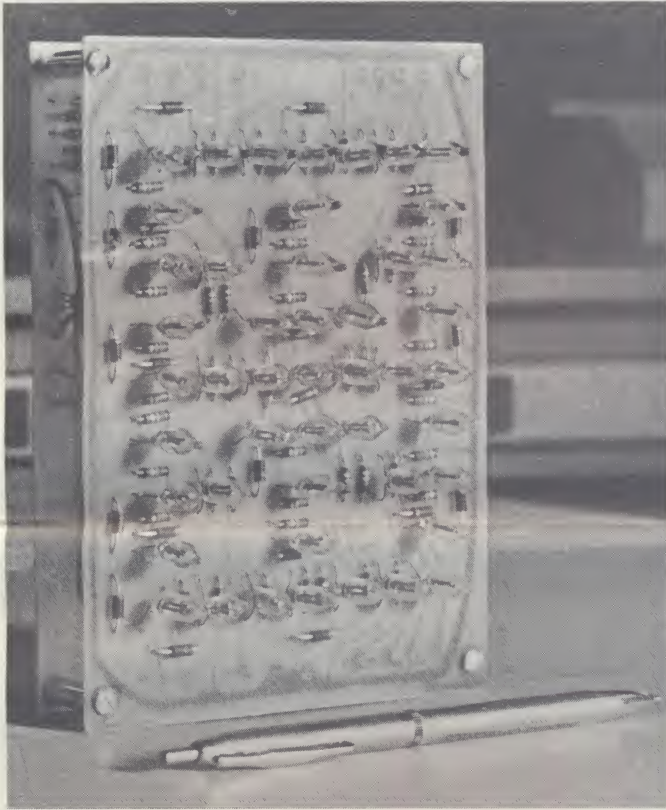
Basketball scoreboards, indoor message boards, scores of other games in progress, special announcements, news items, player statistics, future events.

- * **RADIO-TELEVISION**

In window displays of news items by remote control to various public places.

- * **SHOPPING CENTERS**

Special sales in various stores, all stores in center can share time on message board for their message, message constantly changing for eye-catching appeal.

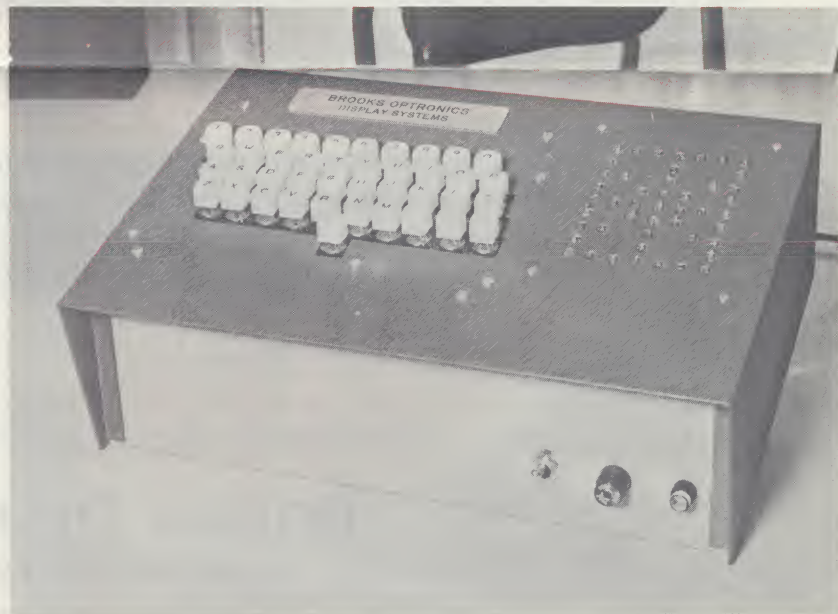


MODULAR DISPLAY UNIT

The unit can display all letters, numbers and variety of special symbols. Units can be stacked to make a display any number of letters long. Lamps are cool operating glow lamps of high brightness. It can be read in full sunlight to a distance of 250 feet away. Lamp life exceeds four years. Modular units are 4½" wide by 6" high by 1½" deep. A single small control cable from the input unit is all that is required to operate an entire display regardless of the number of display units. Modular construction permits the entire solid state block to be replaced, should it be required. Spare units and overnight service replacement make maintenance as simple as changing a fuse.

KEYBOARD CONTROLLER

The input unit is an all solid state typewriter type keyboard. The panel has a letter display which indicates the letter typed before transmission to the sign display. This permits errors to be corrected before they appear on the master display board. The modern typewriter type keyboard is fully imprinted and simple to operate.



OPERATION

The "GLO-AD" message display operates with maximum simplicity. The input gear is located remote from the lamp modules and can control any length and height display. Your message or messages can be cleared from the display instantly and new information typed to the sign anytime you wish. The typewriter type keyboard is simple to operate and can be operated by anyone after a few moments of practice. A tape recorder unit is available as an option for automatic repeating and copy changing.

LAMP MODULES AND ELECTRONICS

Lamp modules are individually constructed. Each module will display any letter or number. These modules may be assembled together to form a line of copy any number of characters long and any number of lines of copy required for your particular installation. Each module contains 47 glow lamps of high brightness legible in full sunlight. A series of interconnect plug-in cables allow any one of the modules to be removed for service should it be necessary. Spare modules are available on an exchange overnight basis for no "down-time" on sign maintenance. Electronic controls contained in the modules is all "Solid State Circuitry" with an unlimited life span.

RELIABILITY

Brooks Optronics, through its extensive research and development of the "GLO-AD" system, provides the sign industry with the most reliable and economic unit available today. The "Solid State Electronic" design of the lamp modules and controls insures high reliability, low maintenance and long life. The many applications of the "GLO-AD" message system provides the advertiser with a new method of communication with the consumer trade in all areas.

WARRANTY

Brooks Optronics equipment, when properly installed in accordance with our specifications, is covered by a one-year warranty against operating deficiencies as a result of defective workmanship or material. Such defects will be remedied at our option with new devices, new parts, or repair of the device. Repair or replacement by others, time, transportation charges, indemnity, etc. are not included in this general warranty.

PRESENTED BY

Brooks Optronics

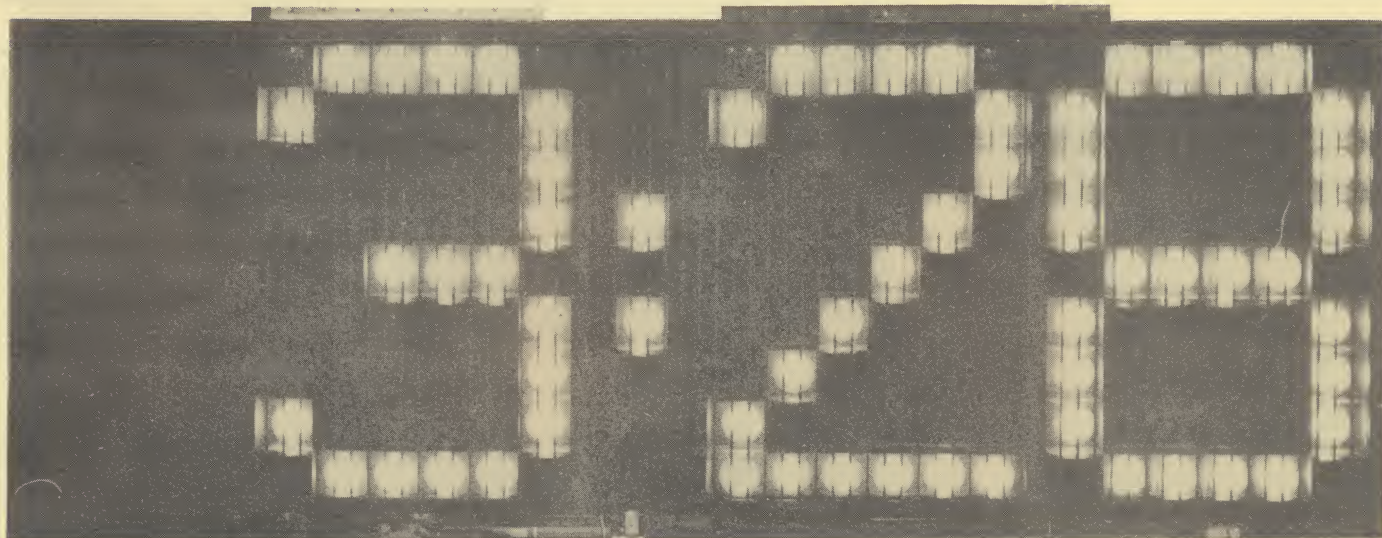
ELECTRONIC DISPLAY SYSTEMS

2971 Copper Road - Santa Clara, Calif. 95051
Phone (408) 245-8322

BROOKS OPTRONICS

ALL NEW MODEL SST

Time-Temperature-Humidity Display



All Solid State Remote Control Modular Construction
Plug-in Circuitry Automatic Dimming

BROOKS OPTRONICS

ELECTRONIC DISPLAY SYSTEMS

2971 COPPER ROAD

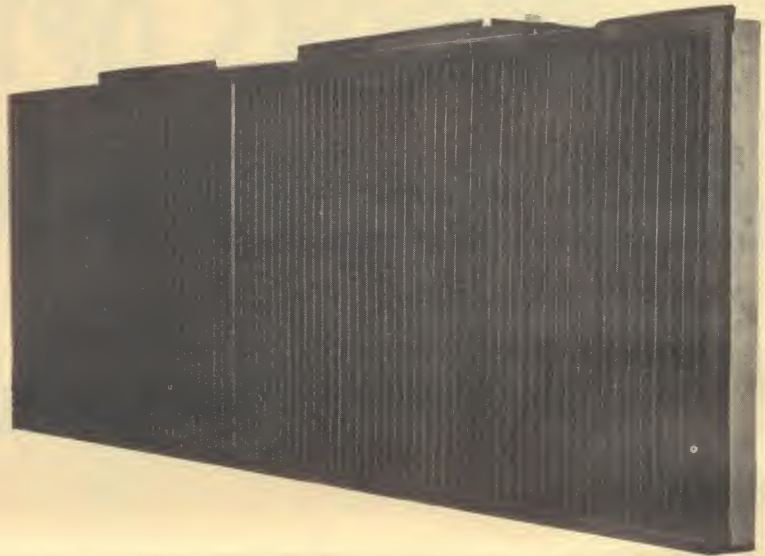
SANTA CLARA, CALIF. 95051

PHONE 408 — 245-8322

MODEL SST TIME-TEMP

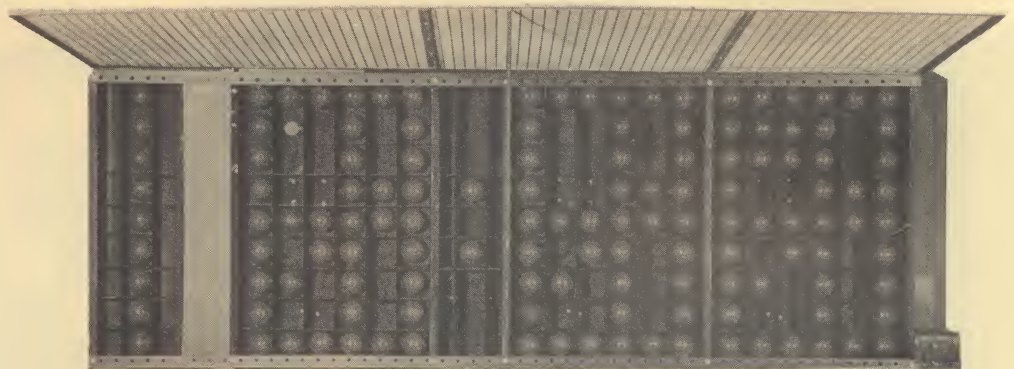
28" or 36" NUMERAL HEIGHT

6 x 9 LAMP MATRIX

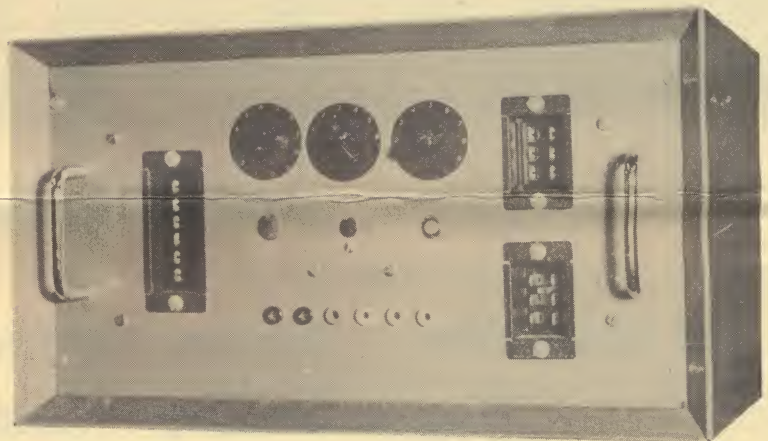


**LOUVERED
SUN SCREEN**

**"EGG CRATE" TYPE
LAMP DIVIDERS**



**"SOLID STATE"
CONTROL LOGIC UNIT**



**SOLID STATE TEMPERATURE
SENSOR UNIT
ADDITIONAL HUMIDITY SENSOR OPTIONAL**

MODEL-SST-TIME-TEMPERATURE UNIT

STANDARD EQUIPMENT FEATURES

ALL SOLID STATE ASSEMBLY — The Model SST Time-Temp unit is completely electronic, and solid state. There are no mechanical parts at the lamp banks to malfunction or break down. The unit contains all plug-in modular circuitry. Your maintenance problems are at a minimum with this installation. Exchange plug-in modules are available on an overnight basis for low service time on your sign.

REMOTE LOGIC CONTROL UNIT — The solid state logic control is of modular plug-in circuitry. The unit requires a small-voltage cable with plug-in feature to the lamp bank. The unit may be separated up to 300 ft. from the lamp banks on a standard unit. One control will operate any quantity lamp banks.

REMOTE TIME SETTING — Remote time setting switches, together with a visual digit clock, is mounted on the logic control unit. Time may be reset without viewing the sign.

AUTOMATIC DIMMING — The automatic dimming will maintain the lamp brightness at the most legible level for any change in local light conditions in daytime or at night. This more than doubles lamp life.

LAMP BANKS — Model SST Lamp Banks are constructed of rugged lightweight steel. Modular construction enables easy assembly and installation. Banks are available in 28 and 36 inch numeral heights. Lamp Matrix pattern is 6 lamps wide and 9 lamps high. The lamp face is shaded with a hinged louvered Sun Screen to eliminate glare and reflections. Lamp dividers maintain maximum contrast between lighted and unlighted lamps. Easily accessible for service to the lamp banks.

TEMPERATURE RANGE — Standard equipment range is from 0 degrees to plus 120 degrees Fahrenheit. Additional range is available as an option. Remote temperature sensor unit is all electronic solid state circuitry.

CONTROL CABLES — 200 ft. cables are supplied from the control unit to the lamp banks. 200 ft. cables are supplied from the temperature sensor to the control unit. Interconnecting cables are supplied for 2 ft. lamp bank spacing on double face signs. Other cable lengths are available as an option on special order.

SPECIAL OPTIONS

"HUMIDITY DISPLAY AND CONTROL" — A solid state humidity unit providing alternating humidity reading with your time-temperature display.

FIXED NUMBER DISPLAY — An alternating fixed number is available for displaying items such as bank interest rate, Dow Jones average, etc.

**Our "All New" Model SST Solid State Display can be built
to fit your particular needs. Write the factory
for your custom requirements.**

GENERAL SPECIFICATIONS

Accuracy.....Time: Plus or minus 1 minute
 Temperature: Plus or minus 1 degree

Input Voltage.....120 volts, 60 cycle, standard;
 230 volts or 50 cycle unit available on special order

Temperature Range.....0 to 120 degrees standard;
 other ranges available on special order

Finish.....flat black enamel

MODEL SST — 6 x 9 LAMP MATRIX

Numeral Height (inches)	Legibility Range (feet)	Number of Faces	Dimensions (inches)			Lamps		Suggested Lamp & Current Required		
			Wide	High	Deep	Total Number	Max. No. Lit.	25A19	30R20	40A19
28	1200	1	79 ³ / ₄	28 ¹ / ₂	12	132	77	16.0	19.3	25.7
28	1200	2	79 ³ / ₄	28 ¹ / ₂	21	264	154	32.0	38.6	51.4
36	1600	1	98 ³ / ₄	36 ¹ / ₂	12	132	77	16.0	19.3	25.7
36	1600	2	98 ³ / ₄	36 ¹ / ₂	21	264	154	32.0	38.6	51.4

Consult Factory for Higher Wattage or Special Long Life Sign Lamp.
 Dimensions are approximate. Consult factory for exact dimensions.

BROOKS OPTRONICS

ELECTRONIC DISPLAY SYSTEMS

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SANTA CLARA, CALIF. 95051

PHONE 408 — 245-8322

Price Schedule

EFFECTIVE APRIL 2, 1968

Time-Temperature Display Model SST

Banks Prewired — Ready for Installation

Plug-in Controls — Ready for Operation

TIME-TEMP UNIT (Lamps not included)

Model	Numeral Height	Pattern Lamp	Overall Dimensions Height and Length	Single Face	Double Face
SST-28	28"	6 x 9	28½" — 79¾"	\$3985.00	\$4665.00
SST-36	36"	6 x 9	36½" — 98¾"	\$4280.00	\$5245.00

CONTROL CABLES — STANDARD

- 200 Ft. — Controls to Lamp Banks
- 200 Ft. — Temp Sensor to Control Unit
- Interconnect Cables for 2-Ft. Spacing on Double Face Banks
(For additional cables and length — Consult factory.)

SPECIAL OPTIONS

"Humidity" Display and Control \$115.00

Fixed Number Display (Bank Interest, etc.) \$110.00

All Prices Are List, F.O.B. Santa Clara, Calif.

Prices are subject to change without notice.

TERMS: Net 30 days subject to credit approval.

SPECIAL FEATURES

ALL SOLID STATE ELECTRONIC UNIT

- Plug-in Modular Circuitry
- Minimum Maintenance
- Exchange Plug-in Modules available for fast service

REMOTE LOGIC CONTROL UNIT

- Small Voltage Cable required from control to face
- Control may be separated up to 300 ft. from Lamp Bank on standard unit
- One control for any quantity Lamp Banks

REMOTE TIME SETTING

- Mounted on Logic Control Unit — Automatic Electronic Setting
- Visual Digit Clock — mounted on Logic Control Unit

AUTOMATIC DIMMING

- Continuous Range
- Standard on all units

LAMP BANKS

- 28 and 36 inch height Numerals
- 6 x 9 Lamp Matrix
- Louvered Sun Screen — standard equipment
- Lamps up to 75 watts

TEMPERATURE RANGE

- Standard — 0° to 120° Fahrenheit
(Consult factory for additional range)

Variations from standard units on your custom signs are available.
Submit your requirements to factory.

Warranty

Model SST equipment, when properly installed in accordance with our specifications, is covered by a one-year warranty against operating deficiencies as a result of defective workmanship or material. Such defects will be remedied at our option with new devices, new parts, or repair of the device. Repair or replacement by others, time, labor, transportation charges, indemnity, etc., are not included in this general warranty.

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